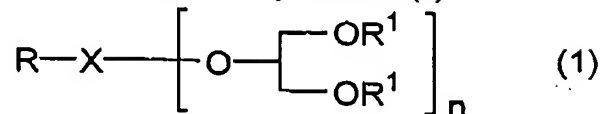
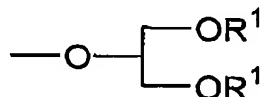


CLAIMS

1. A compound represented by formula (1):



wherein R represents a residue comprising a reactive group or a group capable of being transformed into the reactive group; n represents an integer of 3 or more; and X represents a residue capable of having the following structure by n in number:



R¹'s each represent a hydrogen atom or a group capable of being transformed into a hydrogen atom, and 6 or more of R¹'s may be the same or different.

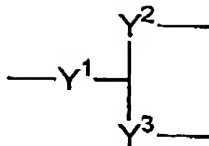
2. The compound according to claim 1, wherein each R¹ represents a hydrogen atom.

3. The compound according to claim 1, wherein each R¹ represents benzyl.

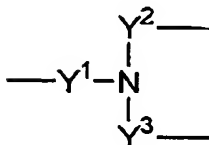
4. The compound according to any one of claims 1 to 3, wherein n is 2^m, in which m is an integer of 2 or more.

5. The compound according to any one of claims 1 to 4, wherein X comprises one or more series branched structure.

6. The compound according to any one of claims 1 to 5, wherein X comprises one to (n-1) structure(s) represented by

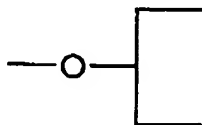


or

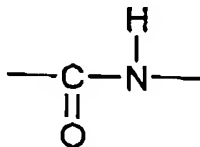


wherein Y^1 , Y^2 and Y^3 each independently represent a single bond, or one, or two or more in any combination, which may be the same or different, selected from the group consisting of substituted or unsubstituted alkylene, carbonyl, substituted or unsubstituted imino, O, S, sulfonyl and sulfinyl, and when Y^1 , Y^2 and Y^3 exist two or more in number, they may be the same or different.

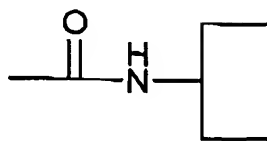
7. The compound according to any one of claims 1 to 6, wherein X comprises one to (n-1) structure(s) represented by



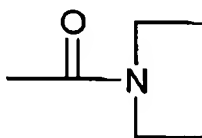
8. The compound according to any one of claims 1 to 7, wherein X comprises one to (n-1) structure(s) represented by



9. The compound according to any one of claims 1 to 8, wherein X comprises one to (n-1) structure(s) represented by



10. The compound according to any one of claims 1 to 9, wherein X comprises one to (n-1) structure(s) represented by

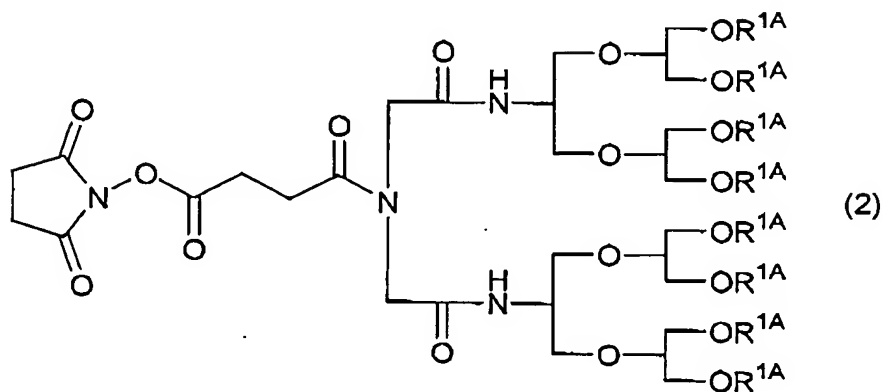


11. The compound according to any one of claims 1 to 10, wherein the residue comprising a reactive group or a group capable of being transformed into the reactive group is a residue comprising a group having reactivity to or a group capable of being transformed into the group having reactivity to an amino acid side chain, an N-terminal amino group or a C-terminal carboxyl group in a physiologically active polypeptide or a derivative thereof, or a sugar chain bound to the polypeptide.

12. The compound according to any one of claims 1 to 11, wherein the residue comprising a reactive group or a group capable of being transformed into the reactive group is selected from the group consisting of a carboxylic acid active ester residue, carbonate, maleimido, mercapto, formyl, tresyl, isocyanato, an acid anhydride residue, an acid halide residue, vinylsulfonyl, hydrazido, amino, a hydroxyl group, halogen, carboxy, vinyl and phosphono.

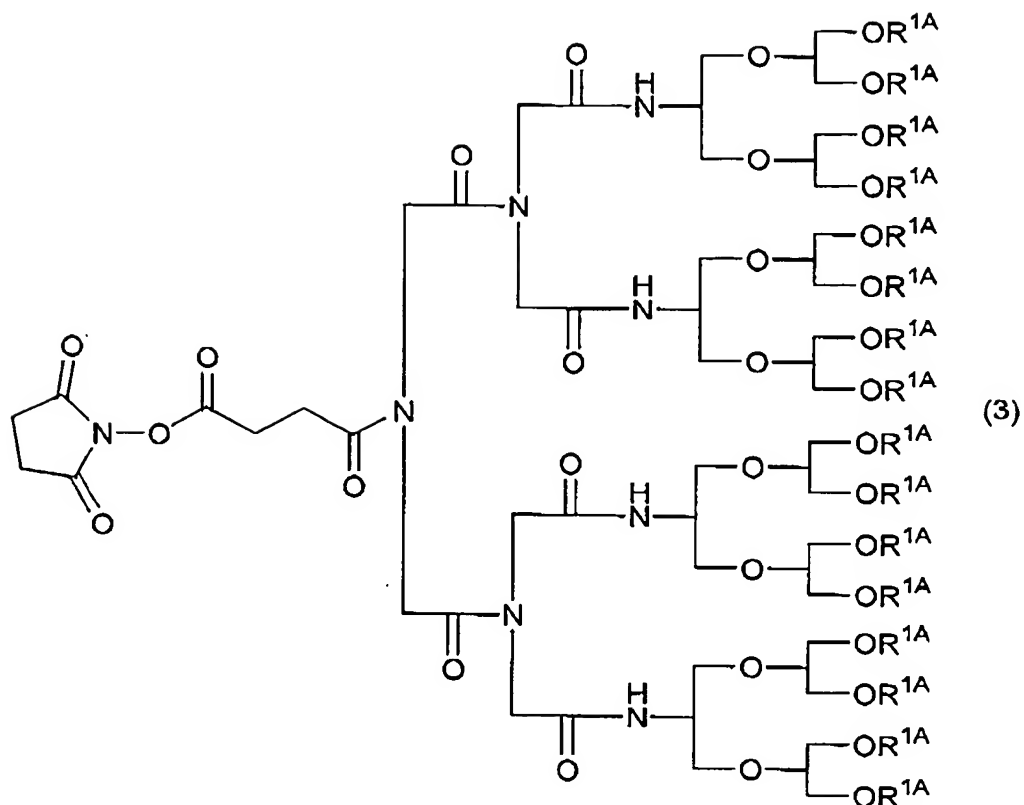
13. A mixture comprising at least two compounds according to any one of claims 1 to 12.

14. A compound represented by formula (2):



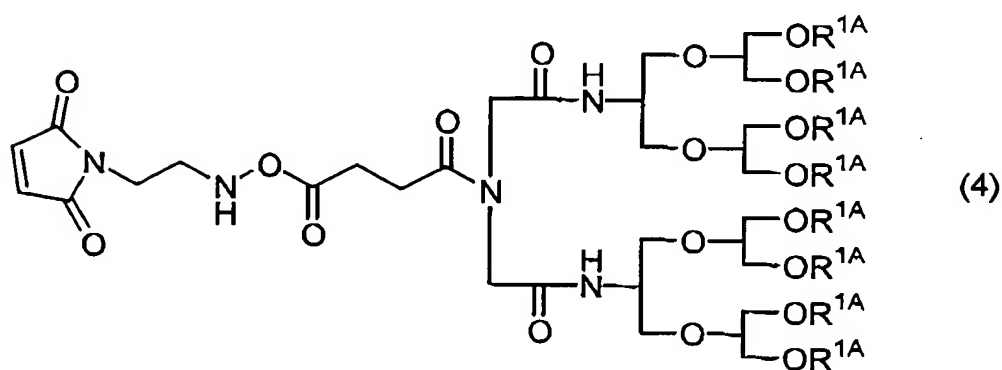
wherein R^{1A} represents a hydrogen atom or benzyl.

15. A compound represented by formula (3):



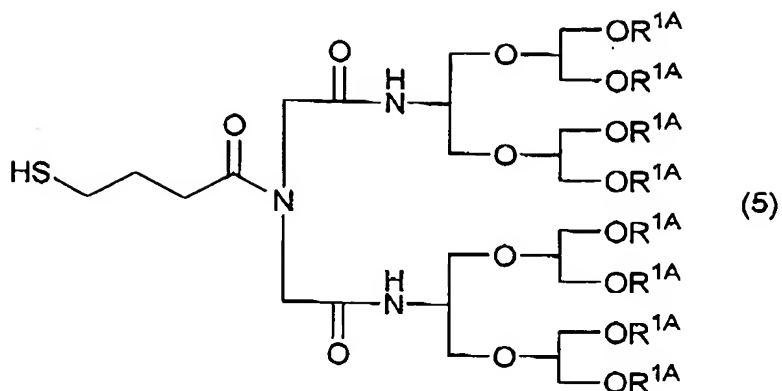
wherein R^{1A} represents a hydrogen atom or benzyl.

16. A compound represented by formula (4):



wherein R^{1A} represents a hydrogen atom or benzyl.

17. A compound represented by formula (5):



wherein R^{1A} represents a hydrogen atom or benzyl.

18. A chemically modified polypeptide in which a physiologically active polypeptide or a derivative thereof is modified with at least one compound according to any one of claims 1 to 12 and 14 to 17 directly or via a spacer.

19. The chemically modified polypeptide according to claim 18, wherein the physiologically active polypeptide or the derivative thereof is selected from the group consisting of an enzyme, a cytokine, a hormone, a toxin, an antibody and derivatives thereof.

20. The chemically modified polypeptide according to claim 18, wherein the physiologically active polypeptide or the derivative thereof is selected from the group consisting of asparaginase, glutaminase, arginase, uricase, superoxide dismutase, lactoferrin, streptokinase, plasmin, adenosine deaminase, interleukin-1 to 24, interferon- α , interferon- β , interferon- γ , interferon- ω , interferon- τ , granulocyte-colony stimulating factor, erythropoietin, tumor necrosis factor, thrombopoietin, *klotho* protein, leptin, fibroblast growth factor-1 to 19, midkine, calcitonin, epidermal growth factor, glucagon, insulin, insulin-like growth factor-1, osteogenic protein-1, stem cell growth factor, amylin, parathyroid hormone, plasminogen activators, vascular endothelial cell growth

factor, transforming growth factors, glucagon-like peptides, growth hormone, natriuretic peptides, plasminogen, angiopoietin, angiostatin, endostatin, neocarzinostatin, hepatocyte growth factor, ricin, *Pseudomonas* exotoxin, diphtheria toxin, soluble receptors thereof, and derivatives thereof.

21. The chemically modified polypeptide according to any one of claims 18 to 20, wherein the derivative of a physiologically active polypeptide is selected from the group consisting of the polypeptide in which an amino acid is deleted, the polypeptide in which an amino acid is substituted, the polypeptide in which an amino acid is inserted, the polypeptide in which an amino acid is added, the polypeptide in which a sugar chain is deleted, and the polypeptide in which a sugar chain is bound.

22. A pharmaceutical composition which comprises the chemically modified polypeptide according to any one of claims 18 to 21.

23. A method for improving the stability or water-solubility of a physiologically active polypeptide or a derivative thereof, which comprises chemically modifying the physiologically active polypeptide or the derivative thereof with the compound according to any one of claims 1 to 12 and 14 to 17.

24. The method according to claim 23, wherein the physiologically active polypeptide or the derivative thereof is selected from the group consisting of an enzyme, a cytokine, a hormone, a toxin, an antibody and derivatives thereof.

25. The method according to claim 23, wherein the physiologically active polypeptide or the derivative thereof is selected from the group consisting of asparaginase, glutaminase, arginase, uricase, superoxide dismutase, lactoferrin,

streptokinase, plasmin, adenosine deaminase, interleukin-1 to 24, interferon- α , interferon- β , interferon- γ , interferon- ω , interferon- τ , granulocyte-colony stimulating factor, erythropoietin, tumor necrosis factor, thrombopoietin, *klotho* protein, leptin, fibroblast growth factor-1 to 19, midkine, calcitonin, epidermal growth factor, glucagons, insulin, insulin-like growth factor-1, osteogenic protein-1, stem cell growth factor, amylin, parathyroid hormone, plasminogen activator, vascular endothelial cell growth factor, transforming growth factor, glucagons-like peptide, growth hormone, natriuretic peptides, plasminogen, angiopoietin, angiostatin, endostatin, neocarzinostatin, hepatocyte growth factor, ricin, *Pseudomonas* exotoxin, diphtheria toxin, soluble receptors thereof, and derivatives thereof.

26. The method according to any one of claims 23 to 25, wherein the derivative of the physiologically active polypeptide is selected from the group consisting of the polypeptide in which an amino acid is deleted, the polypeptide in which an amino acid is substituted, the polypeptide in which an amino acid is inserted, the polypeptide in which an amino acid is added, the polypeptide in which a sugar chain is deleted, and the polypeptide in which a sugar chain is bound.

27. A chemically modified low molecular compound in which a low molecular compound is modified with at least one compound according to any one of claims 1 to 12 and 14 to 17, directly or a via a spacer.

28. A pharmaceutical composition which comprises the chemically modified low molecular compound according to claim 27.

29. A method for improving the stability or water-solubility of a low molecular compound, which comprises chemically modifying the low molecular compound with the compound according to any one of claims 1 to 12 and 14 to 17.

30. A chemically modifying agent for a physiologically active polypeptide or a derivative thereof, or a low molecular compound which comprises the compound according to any one of claims 1 to 12 and 14 to 17.